What is claimed is:

1. An active-matrix liquid crystal display in which a liquid crystal layer is held between an active matrix substrate and an opposite substrate, comprising:

a first group of pixel electrodes that are aligned in a prescribed direction on the active matrix substrate and that are supplied with picture signals of a first polarity; and

a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and that are supplied with picture signals of a second polarity,

wherein within the liquid crystal layer, liquid-crystal molecules lying in proximity to the active matrix substrate are initially subjected to a prescribed orientation in a non-power mode so that long-axis directions thereof substantially match alignment directions of the first and second groups of pixel electrodes respectively.

2. An active-matrix liquid crystal display in which a liquid crystal layer is held between an active matrix substrate and an opposite substrate, comprising:

a first group of pixel electrodes that are aligned in a prescribed direction on the active matrix substrate and that are supplied with picture signals of a first polarity;

a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and that are supplied with picture signals of a second polarity; and

an orientation film that is formed on a surface of the active matrix substrate by effecting an orientation process in a prescribed orientation direction (Ra) along

alignment directions of the first and second groups of pixel electrodes.

3. An active-matrix liquid crystal display in which a liquid crystal layer is held between an active matrix substrate and an opposite substrate, comprising:

a first group of pixel electrodes that are aligned in a prescribed direction on the active matrix substrate and that are supplied with picture signals of a first polarity; and

a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and that are supplied with picture signals of a second polarity,

wherein within the liquid crystal layer, liquid-crystal molecules lying in proximity to the active matrix substrate are initially subjected to an orientation providing a prescribed orientation direction in a non-power mode so that the long-axis directions thereof are slanted with respect to alignment directions of the first and second groups of pixel electrodes respectively, and they are also twisted to lie across the first and second groups of pixel electrodes respectively in plan view when being extended from the active-matrix substrate to the opposite substrate.

4. An active-matrix liquid crystal display in which a liquid crystal layer is held between an active matrix substrate and an opposite substrate, comprising:

a first group of pixel electrodes that are aligned in a prescribed direction on the active matrix substrate and that are supplied with picture signals of a first polarity;

a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and that are supplied with picture signals of a second polarity;

a first orientation film that is formed on a surface of the active matrix substrate by effecting an orientation process in a first orientation direction (Ra) that is slanted with respect to alignment directions of the first and second groups of pixel electrodes; and

a second orientation film that is formed on a surface of the opposite substrate by effecting an orientation process in a second orientation direction (Rb) that is slanted with respect to the alignment directions of the first and second groups of pixel electrodes,

wherein one of the first and second orientation directions is directed towards the first group of pixel electrodes in plan view, while the other is directed towards the second group of pixel electrodes in plan view.

5. An active-matrix liquid crystal display according to claim 3 or 4, wherein the orientation direction is slanted by an angle of about 45° against the alignment directions of the first and second groups of pixel electrodes.

6. An active-matrix liquid crystal display according to any one of claims 1 to 4, wherein a pre-tilt angle ranging from 3° to 30° is imparted to liquid-crystal molecules lying in proximity to the active matrix substrate.

7. An active-matrix liquid crystal display according to any one of claims 1 to 4, wherein a pre-tilt angle ranging from 3° to 30° is imparted to liquid-crystal molecules lying in proximity to the active matrix substrate by forming pillar structures that are made of an inorganic material and are slanted in a specific direction on the active matrix substrate.

8. An active-matrix liquid crystal display according to any one of claims 1 to 4, wherein a pre-tilt angle ranging from 3° to 30° is imparted to liquid-crystal molecules lying in proximity to the active matrix substrate by forming mixtures of first and second pillar structures that are made of an inorganic material and are respectively slanted in different directions in plan view on the active matrix substrate.

9. An active-matrix liquid crystal display according to any one of claims 1 to 4, wherein a planarization process is performed on prescribed regions for wiring signal lines driving the pixel electrodes and other regions for arranging the pixel electrodes on the active matrix substrate.

10. An active-matrix liquid crystal display for an electronic device, comprising:

an active matrix substrate for fabricating a first group of pixel electrodes that are aligned in a prescribed direction and are supplied with picture signals of a first polarity, and a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and are supplied with picture signals of a second polarity;

an opposite substrate that is arranged oppositely to the active matrix substrate;

a liquid crystal layer having a positive dielectric anisotropy that is held between the active matrix substrate and the opposite substrate;

a first orientation film that is formed on a surface of the active matrix substrate by effecting an orientation process in a first orientation direction (Ra) in relation to alignment directions of the first and second groups of pixel electrodes, so that a pre-tilt angle ranging from 3° to 30° is imparted to liquid-crystal molecules lying

in proximity to the active matrix substrate; and

a second orientation film that is formed on a surface of the opposite substrate by effecting an orientation process in a second orientation direction (Rb) that crosses with the first orientation direction with a right angle therebetween.

11. An active-matrix liquid crystal display according to claim 10, wherein the first and second orientation direction are respectively slanted by an angle of about 45° against the alignment directions of the first and second groups of pixel electrodes, and wherein one of the first and second orientation directions is directed towards the first group of pixel electrodes in plan view, while the other is directed towards the second group of pixel electrodes in plan view.

12. An active-matrix liquid crystal display according to claim 10, wherein the pre-tilt angle ranging from 3° to 30° is imparted to liquid-crystal molecules lying in proximity to the active matrix substrate by forming pillar structures that are made of an inorganic material and are slanted in a specific direction on the active matrix substrate.

13. An active-matrix liquid crystal display according to claim 10, wherein the pre-tilt angle ranging from 3° to 30° is imparted to liquid-crystal molecules lying in proximity to the active matrix substrate by forming mixtures of first and second pillar structures that are made of an inorganic material and are respectively slanted in different directions in plan view on the active matrix substrate.

14. An active-matrix liquid crystal display according to claim 10, wherein a planarization process is performed on prescribed regions for wiring signal lines driving

the pixel electrodes and other regions for arranging the pixel electrodes on the active matrix substrate.

15. An active-matrix liquid crystal display according to any one of claims 10 to 14, wherein the electronic device is a projector using a light modulator for modulating light to be projected onto a screen.

16. An active-matrix liquid crystal display comprising:

an active matrix substrate;

an opposite substrate that is arranged opposite to the active matrix substrate;

a liquid crystal layer that is held between the active matrix substrate and the opposite substrate;

an inorganic orientation film that is formed on a surface of the active matrix substrate and that is composed of at least one type of pillar structure having pillars which are slanted in a specific direction; and

an organic orientation film that is formed on a surface of the opposite substrate and that is composed of orientational high molecules.

17. An active-matrix liquid crystal display according to claim 16, wherein the inorganic orientation film is composed of multiple types of pillar structures that are slanted in different directions on the active matrix substrate in plan view.

18. An active-matrix liquid crystal display according to claim 16 or 17, wherein the active matrix substrate fabricates a first group of pixel electrodes that are aligned in a prescribed direction and are supplied with picture signals of a first polarity, and a

SUB A3 concl'd

second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and are supplied with picture signals of a second polarity.

19. An active-matrix liquid crystal display comprising:

an active matrix substrate for fabricating a first group of pixel electrodes that are aligned in a prescribed direction and are supplied with picture signals of a first polarity, and a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and are supplied with picture signals of a second polarity;

an opposite substrate that is arranged oppositely to the active matrix substrate; and

a liquid crystal layer that is held between the active matrix substrate and the opposite substrate,

wherein liquid-crystal molecules contained in the liquid crystal layer are subjected to prescribed orientations in a non-power mode in such a way that a first pre-tilt angle imparted to liquid-crystal molecules lying in proximity to the active matrix substrate becomes larger than a second pre-tilt angle imparted to liquid-crystal molecules lying in proximity to the opposite substrate.

20. An active-matrix liquid crystal display according to claim 19, wherein the first pre-tilt angle imparted to liquid-crystal molecules lying in proximity to the active matrix substrate ranges from 3° to 30° in the non-power mode.

SUB A4

21. An active-matrix liquid crystal display according to claim 19 or 20, wherein the liquid-crystal molecules lying in proximity to the active matrix substrate are

initially oriented in a specific direction (Ra) in the non-power mode in such a way that the long-axis directions thereof are made substantially parallel with alignment directions of the first and second groups of pixel electrodes on the active matrix substrate.

22. An active-matrix liquid crystal display according to claim 19 or 20, wherein the liquid-crystal molecules lying in proximity to the active matrix substrate are initially oriented in a specific direction (Ra) in the non-power mode in such a way that the long-axis directions thereof cross with alignment directions of the first and second groups of pixel electrodes on the active matrix substrate, and wherein other liquid-crystal molecules contained in the liquid crystal layer are twisted in such a way that the long-axis directions thereof extend from the active matrix substrate to the opposite substrate and lie across the first and second groups of pixel electrodes on the active matrix substrate in plan view.

23. An active-matrix liquid crystal display for an electronic device, comprising:

an active matrix substrate for fabricating a first group of pixel electrodes that are aligned in a prescribed direction and are supplied with picture signals of a first polarity, and a second group of pixel electrodes that are aligned to adjoin with the first group of pixel electrodes respectively and are supplied with picture signals of a second polarity;

an opposite substrate that is arranged oppositely to the active matrix substrate; and

a liquid crystal layer that is held between the active matrix substrate and the opposite substrate,

wherein liquid-crystal molecules contained in the liquid crystal layer are subjected to prescribed orientations in a non-power mode in such a way that a first pre-tilt angle, which ranges from 3° to 30°, imparted to liquid-crystal molecules lying in proximity to the active matrix substrate becomes larger than a second pre-tilt angle imparted to liquid-crystal molecules lying in proximity to the opposite substrate.

24. An active-matrix liquid crystal display according claim 23, wherein the liquid-crystal molecules lying in proximity to the active matrix substrate are initially oriented in a specific direction (Ra) in the non-power mode in such a way that the long-axis directions thereof are made substantially parallel with alignment directions of the first and second groups of pixel electrodes on the active matrix substrate.

25. An active-matrix liquid crystal display according to claim 23, wherein the liquid-crystal molecules lying in proximity to the active matrix substrate are initially oriented in a specific direction (Ra) in the non-power mode in such a way that the long-axis directions thereof cross with alignment directions of the first and second groups of pixel electrodes on the active matrix substrate, and wherein other liquid-crystal molecules contained in the liquid crystal layer are twisted in such a way that the long-axis directions thereof extend from the active matrix substrate to the opposite substrate and lie across the first and second groups of pixel electrodes on the active matrix substrate in plan view.

26. An active-matrix liquid crystal display according to any one of claims 23 to 25, wherein the electronic device is a projector using a light modulator for modulating light to be projected onto a screen.